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Andreas H. von Flotow

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EXAMINER

JONES, HEATHIER RAE

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/726,334

Applicant(s)

VON FLOTOW ET AL.

Examiner

HEATHER R. JONES

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-40 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3 and 6-40 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date 10/22/2008

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed October 2, 2008, with respect to the rejection(s) of claim(s) 1-3 and 6-40 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a newly found prior art reference.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 6-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riconda et al. (U.S. Patent Application Publication 2002/0130953) in view of Claus et al. (U.S. Patent 7,133,067).

Regarding claim 1, Riconda et al. discloses a method for stabilizing an image of an object being taken from a video camera, the video camera being moved by a transport mechanism and being controlled by a line-of-sight controller, the method controlling: receiving a plurality of images of the object (paragraphs [0132]-[0133] – multiple images are taken in order to track the object); and for each of the plurality of images (paragraph [0132] – parameters are received before each frame is taken), receiving a velocity and orientation of

the transport mechanism (paragraph [0131] - change in position of the vehicle, or vehicle motion (e.g., as determined by speed and wheel direction, or by use of inertial sensors)); receiving an orientation of the camera relative to the transport mechanism (paragraph [0131] - the positions of the angular transducers effecting the attitudinal control of the robotic camera mounting, which would be relative to the transport mechanism); receiving a scan and tilt rate of the camera (paragraph [0131] - the positions of the angular transducers effecting the attitudinal control of the robotic camera mounting, which would include the scan and tilt rates that create the angular position of the camera); receiving a distance from the camera to the object (paragraph [0131] - the distance of the item (object) determined by the focus control on the camera lens); calculating an inter-frame stabilization adjustment based on the velocity and orientation of the transport mechanism, the orientation of the camera, the scan and tilt rate of the camera, and distance to the object (Figs. 18A and 18B; paragraphs [0130]-[0136]); adjusting the position of a displayed area of the image, wherein the received image is larger than the displayed image and the adjusting of the display of the image moves an area of the displayed image within the received image (paragraph [0023] – it is well known in the art that when the user zooms in on the target the image would need to be adjusted accordingly to display); calculating a line-of-sight adjustment for the line-of-sight controller based on the inter-frame stabilization adjustment (Figs. 18A and 18B; paragraphs [0130]-[0136]); and controlling the line-of-sight controller in accordance with the calculated line-of-sight adjustment (Figs. 18A

and 18B; paragraphs [0130]-[0136]). However, Riconda et al. fails to disclose using the inter-frame stabilization adjustment for adjusting the position of a displayed area of an image, and adjusting the position of a displayed area of the image based on the inter-frame stabilization adjustment, wherein the received image is larger than the displayed image and the adjusting of the display of the image moves an area of the displayed image within the received image.

Referring to the Claus et al. reference, Claus et al. discloses a method for stabilizing an image of an object being taken from a video camera, the video camera being moved by a transport mechanism, the method comprising: an inter-frame stabilization adjustment for adjusting the position of a displayed area of an image, wherein the inter-frame stabilization adjustment is based on the movement influences of a moving or flying carrier (col. 1, lines 24-30 and 52-55; col. 2, lines 23-27); and adjusting the position of a displayed area of the image based on the inter-frame stabilization adjustment (col. 1, lines 24-30 and 52-55; col. 2, lines 23-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the display according to the inter-frame stabilization adjustment as calculated by Claus et al. in the method disclosed by Riconda et al. in order to eliminate unwanted movement influences of movements of the carrier on the quality of the image recorded by the CCD sensor. However, Riconda et al. in view of Claus et al. fail to disclose adjusting the position of a displayed area of an image according to an inter-frame

stabilization calculation that considers all the parameters considered in adjusting the line-of-sight controller. Official Notice is taken that it is well known in the art that to further adjust an image to achieve a higher quality of image one should take into consideration all parameters that may affect the image quality. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further included all the parameters used in calculating the line-of-sight controller in the calculation to adjust the position of a displayed area of an image in method disclosed by Riconda et al. in view of Claus et al. in order to achieve a higher quality image.

Regarding claim 2, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1 including that the transport mechanism is an airborne vehicle (Claus et al.: col. 1, lines 52-55).

Regarding claim 3, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1 including that the line of sight of the camera is derived from the line-of-sight controller (Riconda et al.: Figs. 18A and 18B; paragraphs [0130]-[0136]).

Regarding claim 6, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1 including that the inter-frame stabilization adjustment specifies the number of pixels in scan and tilt directions (Claus et al.: col. 2, lines 35-41).

Regarding claim 7, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1 including that the

controlling of the line-of-sight controller specifies rate of scan and tilt movement (Riconda et al.: paragraph [0136] – angular movements include scan and tilt movements).

Regarding claim **8**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1 including that the distance to the object is provided by a range finder (Riconda et al.: paragraph [0131] - range finder).

Regarding claim **9**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1 including that the distance to the object is calculated based on the line of sight of the camera and the difference in altitude of the object to the camera (Riconda et al.: paragraph [0131] – distance finder/range finder - the distance from the camera to the subject being photographed is used and if the camera is in an airplane then altitude would be a factor in finding the distance).

Regarding claim **10**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1 including that the velocity of the transport mechanism is relative to the object (Riconda et al.: paragraph [0131] – change in position of the vehicle, or vehicle motion (e.g., as determined by speed and wheel direction, or by use of inertial sensors) and the position of the object is relative to the vehicle).

Regarding claim **11**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1 including that the

velocity of the transport mechanism is relative to an earth frame of reference (Riconda et al.: paragraph [0131] – the position of the object, which can be an earth frame of reference, is relative to the vehicle).

Regarding claim **12**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 1, but fail to disclose that the calculated inter-frame stabilization adjustment factors in field of view of the display. Official Notice is taken that it is well known to include the field of view into an equation for stabilizing an image. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the field of view of the display in the inter-frame stabilization calculation as disclosed by Brunner, Jr. et al. in view of Vincent because the more factors considered in the calculation will result in a higher quality image.

Regarding claim **13**, Riconda et al. discloses a method for stabilizing an image of an object being taken from a video camera, the video camera being moved by a transport mechanism and being controlled by a line-of-sight controller, the image being displayed on a display device, the method comprising: determining a difference in the location of the object within the image from one frame to the next frame (Figs. 18A and 18B; paragraphs [0130]-[0136]); calculating an inter-frame stabilization adjustment based on the determined difference (Figs. 18A and 18B; paragraphs [0130]-[0136]); calculating a line-of-sight adjustment for the line-of-sight controller based on the inter-frame stabilization adjustment (Figs. 18A and 18B; paragraphs [0130]-[0136]); and

controlling the line-of-sight controller in accordance with the calculated line-of-sight adjustment (Figs. 18A and 18B; paragraphs [0130]-[0136]). However, Riconda et al. fails to disclose adjusting the display of the image based on the inter-frame stabilization adjustment to remove small-amplitude jitter; and adjusting the line-of-sight controller based on the inter-frame stabilization adjustment to account for large-amplitude jitter.

Referring to the Claus et al. reference, Claus et al. discloses a method for stabilizing an image of an object being taken from a video camera, the video camera being moved by a transport mechanism, the method comprising: adjusting the display of the image based on the inter-frame stabilization adjustment to remove small-amplitude jitter, wherein the inter-frame stabilization adjustment is based on the movement influences of a moving or flying carrier (col. 1, lines 24-30 and 52-55; col. 2, lines 23-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the display according to the inter-frame stabilization adjustment as calculated by Claus et al. in the method disclosed by Riconda et al. in order to eliminate unwanted movement influences of movements of the carrier on the quality of the image recorded by the CCD sensor. Furthermore, once Riconda et al. is combined with Claus et al. large-amplitude jitter can be accommodated for by adjusting the line-of-sight controller in respect to the inter-frame stabilization adjustment.

Regarding claim **14**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 13 including that the determining of the difference includes analyzing scan and tilt rate of the line-of-sight controller (Riconda et al.: paragraph [0131] - the positions of the angular transducers effecting the attitudinal control of the robotic camera mounting, which would include the scan and tilt rates that create the angular position of the camera).

Regarding claim **15**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 13 including that the determining of the difference includes analyzing velocity of the transport mechanism (Riconda et al.: paragraph [0131] - change in position of the vehicle, or vehicle motion (e.g., as determined by speed and wheel direction, or by use of inertial sensors)).

Regarding claim **16**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 13 including that the determining of the difference includes analyzing line of sight of the camera (Riconda et al.: paragraph [0131] - the positions of the angular transducers effecting the attitudinal control of the robotic camera mounting, which would include the line of sight of the camera).

Regarding claim **17**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 13 including that the

determining of the difference includes analyzing orientation of the camera and the transport mechanism (Riconda et al.: paragraph [0131], [0133], and [0134]).

Regarding claim **18**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 13 including that the determining of the difference includes recognizing the object within the images (Figs. 18A and 18B; paragraphs [0130]-[0136]).

Regarding claim **19**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 13 including that the calculated line-of-sight adjustment specifies a scan and tilt rate for the line-of-sight controller (Figs. 18A and 18B; paragraphs [0130]-[0136]).

Regarding claim **20**, Riconda et al. discloses an apparatus for stabilizing imagery from a moving video camera, comprising: a mechanical line-of-sight controller for controlling line of sight of the video camera at a specified line-of-sight adjustment rate (Figs. 2A, 2B, 18A and 18B; paragraphs [0130]-[0136]); and an electronic stabilization component that provides frame-to-frame image stabilization based on the specified line-of-sight adjustment rate and that provides to the mechanical line-of-sight controller a new line-of-sight adjustment rate derived from an amount of frame-to-frame image stabilization (Figs. 18A and 18B; paragraphs [0130]-[0136]). However, Riconda et al. fails to disclose adjusting the display of the image based on the inter-frame stabilization adjustment to remove small-amplitude jitter; and adjusting the line-of-sight

controller based on the inter-frame stabilization adjustment to account for large-amplitude jitter.

Referring to the Claus et al. reference, Claus et al. discloses an apparatus for stabilizing imagery from an airborne video camera, comprising: adjusting the display of the image based on the inter-frame stabilization adjustment to remove small-amplitude jitter, wherein the inter-frame stabilization adjustment is based on the movement influences of a moving or flying carrier (col. 1, lines 24-30 and 52-55; col. 2, lines 23-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the display according to the inter-frame stabilization adjustment as calculated by Claus et al. in the apparatus disclosed by Riconda et al. in order to eliminate unwanted movement influences of movements of the carrier on the quality of the image recorded by the CCD sensor. Furthermore, once Riconda et al. is combined with Claus et al. large-amplitude jitter can be accommodated for by adjusting the line-of-sight controller in respect to the inter-frame stabilization adjustment.

Regarding claim 21, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 20 including that the amount of frame-to-frame image stabilization is additionally based on velocity and orientation of an airborne transport vehicle, orientation of the camera relative to the airborne transport vehicle, and distance from the camera to an object

within the image (Riconda et al.: paragraph [0131]; Claus et al.: col. 1, lines 52-55).

Regarding claim **22**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 20 including that the line-of-sight adjustment rate includes a scan rate and a tilt rate (Riconda et al.: paragraph [0131] - the positions of the angular transducers effecting the attitudinal control of the robotic camera mounting, which would include the scan and tilt rates that create the angular position of the camera).

Regarding claim **23**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 20 including that an image received from the video camera is larger than a displayed image and the electronic stabilization component provides frame-to-frame image stabilization by adjusting the location of the displayed image within a received image (Riconda et al.: paragraph [0023] – it is well known in the art that when the user zooms in on the target the image would need to be adjusted accordingly to display).

Regarding claim **24**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 20 including that the specified line-of-sight adjustment rate includes a user-specified image flow (Riconda et al.: Figs. 18A and 18B; paragraphs [0130]-[0136] – the user can determine the area of interest, which object to track).

Regarding claim **25**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 20 including that the

mechanical line-of-sight controller is a motorized gimbal system (Riconda et al.: Figs. 2A and 2B).

Regarding claim **26**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 20 including that the frame-to-frame adjustment keeps an object of the images at the same location when displayed (Riconda et al.: Figs. 18A and 18B; paragraphs [0130]-[0136] – camera is updated with new parameters in order to keep the target in the center of the display).

Regarding claim **27**, Riconda et al. discloses an apparatus for stabilizing imagery from a moving video camera displayed on a display device, comprising: a mechanical line-of-sight controller for controlling line of sight of the video camera at a specified line-of-sight adjustment rate (Figs. 2A, 2B, 18A and 18B; paragraphs [0130]-[0136]); and an electronic stabilization component that provides frame-to-frame image stabilization based on a location of an object within the images and that provides to the mechanical line-of-sight controller a new line-of-sight adjustment rate derived from an amount of frame-to-frame image stabilization (Figs. 18A and 18B; paragraphs [0130]-[0136]). However, Riconda et al. fails to disclose adjusting the display of the image based on the inter-frame stabilization adjustment to remove small-amplitude jitter; and adjusting the line-of-sight controller based on the inter-frame stabilization adjustment to account for large-amplitude jitter.

Referring to the Claus et al. reference, Claus et al. discloses an apparatus for stabilizing imagery from an airborne video camera, comprising: adjusting the display of the image based on the inter-frame stabilization adjustment to remove small-amplitude jitter, wherein the inter-frame stabilization adjustment is based on the movement influences of a moving or flying carrier (col. 1, lines 24-30 and 52-55; col. 2, lines 23-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the display according to the inter-frame stabilization adjustment as calculated by Claus et al. in the apparatus disclosed by Riconda et al. in order to eliminate unwanted movement influences of movements of the carrier on the quality of the image recorded by the CCD sensor. Furthermore, once Riconda et al. is combined with Claus et al. large-amplitude jitter can be accommodated for by adjusting the line-of-sight controller in respect to the inter-frame stabilization adjustment.

Regarding claims **28** and **30-34**, grounds for rejecting claims 21-26 apply for claims 28 and 30-34 respectively.

Regarding claim **29**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 27 including that an amount of frame-to-frame image stabilization is additional based on the specified line-of-sight adjustment rate (Riconda et al: Figs. 18A and 18B; paragraphs [0130]-[0136]).

Regarding claim 35, Riconda et al. discloses a method for stabilizing images being taken from a video camera mounted on a moving vehicle, the camera having a line of sight being controlled by a line-of-sight controller, the method comprising: calculating initial coordinates for a viewport, the viewport corresponding to a portion of an image that is to be displayed (paragraph [0023] – in order to display the zoomed portion of the image the viewport needs to be calculated); calculating inter-frame stabilization adjustments to account for velocity of the vehicle (Figs. 18A and 18B; paragraphs [0130]-[0136]); calculating line-of-sight adjustments for the line-of-sight controller based on the inter-frame stabilization adjustments (Figs. 18A and 18B; paragraphs [0130]-[0136]); and controlling the line-of-sight controller in accordance with the calculated line-of-sight adjustments (Figs. 18A and 18B; paragraphs [0130]-[0136]). However, Riconda et al. fails to disclose the inter-frame stabilization adjustments used to electronically move the viewport from one frame to the next frame; moving the viewport in accordance with the calculated inter-frame stabilization adjustments; and displaying a portion of an image corresponding to the moved viewport.

Referring to the Claus et al. reference, Claus et al. discloses a method for stabilizing images being taken from a video camera mounted on a moving vehicle, the camera having a line of sight being controlled by a line-of-sight controller, the method comprising: the inter-frame stabilization adjustments used to electronically move the viewport from one frame to the next frame; moving the viewport in accordance with the calculated inter-frame stabilization adjustments;

and displaying a portion of an image corresponding to the moved viewport (col. 1, lines 24-30 and 52-55; col. 2, lines 23-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the display according to the inter-frame stabilization adjustment as calculated by Claus et al. in the method disclosed by Riconda et al. in order to eliminate unwanted movement influences of movements of the carrier on the quality of the image recorded by the CCD sensor.

Regarding claim **36**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 35 including that the calculating of the inter-frame stabilization adjustments factors in scan and tilt rate of the line-of-sight controller (Riconda et al.: paragraph [0131] - the positions of the angular transducers effecting the attitudinal control of the robotic camera mounting, which would include the scan and tilt rates that create the angular position of the camera).

Regarding claim **37**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 35 including that the calculating of the inter- frame stabilization adjustments factors in line of sight of the camera (Riconda et al.: paragraph [0131] - the positions of the angular transducers effecting the attitudinal control of the robotic camera mounting, which would include the line of sight of the camera).

Regarding claim **38**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 35 including that the calculating of the inter- frame stabilization adjustments factors in orientation of the camera and the vehicle (Riconda et al.: paragraph [0131], [0133], and [0134]).

Regarding claim **39**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 35 including that the calculating of the inter- frame stabilization adjustments includes recognizing an object within the images (Figs. 18A and 18B; paragraphs [0130]-[0136]).

Regarding claim **40**, Riconda et al. in view of Claus et al. discloses all the limitations as previously discussed with respect to claim 35 including that the calculated line-of-sight adjustment specifies a scan and tilt rate for the line-of-sight controller (Figs. 18A and 18B; paragraphs [0130]-[0136]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon.-Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2621

HRJ
January 19, 2009

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621